

REMARKS

Reconsideration and allowance of this application, as amended, are respectfully requested. This amendment adds new claims 18-23 as follows:

Claim	Drawings in which claim features illustrated
18-23	Figures 3 and 4
24, 25 and 29	Figures 3, 4 and 8
26 and 27	Figure 8
28	Figures 3 and 4

Claims 1-8 stand rejected under 35 U.S.C. 112. These claims have been cancelled. The new claims have been drafted keeping the Examiner's 35 U.S.C. 112 rejections in mind.

Claims 1-3 and 7-8 stand rejected under 35 U.S.C. 102 as being anticipated by JP2001-1284208A. These claims have been cancelled in favor of new claims 18-29. The new claims are believed to patentably define over all of the art of record including JP2001-1284208A. Our new independent claims commonly require:

- a substrate to be processed, namely a substrate having a hydrophobic layer and a hydrophilic film arranged on the hydrophobic layer; and
- the timing of transition from the chemical liquid treatment to the mixed liquid treatment, that is, the transition is carried out after the hydrophilic film is partially removed so that the hydrophobic layer is partially exposed but before the hydrophilic film is completely removed.

Advantages achieved by these features are set forth in our specification at page 10, lines 20 to 28, and page 14, line 29 to page 15, line 1 of the specification.

JP2001-1284206A does not teach the combinations of features set forth in our new claims. The reference is silent on the type of the layer and/or the film to be processed, hydrophobic or hydrophilic. Moreover, the reference merely teaches that a rinse liquid is supplied onto the substrate after supplying a chemical (cleaning or developing) liquid, but does not suggest any transition timing as defined in the newly added independent claims.

Original claim 1 was rejected under 35 U.S.C. 102(b) as being anticipated by JP 4-287922. This claim has been cancelled in favor of new claims 18-29. The new claims are believed to patentably define over all of the art of record including JP 4-287922.

JP4-287922A appears to be the closest prior art cited by the Examiner. We discuss this reference in our "Description of the Related Art" portion of our specification. This reference does not teach or even suggest the transition timing required by our independent claims.

The essential feature of the invention of JP4-287922A is that the surface is not exposed to an atmosphere between the cleaning treatment step (A) and the rinse treatment step (B). To this end, the method of JP4-287922A supplies a cleaning liquid and a rinse liquid simultaneously onto the substrate in the "overlapping step". However, the reference does not suggest the transition timing required by our independent claims.

The JP4-287922A reference does show a timing chart in Fig. 9. However, the reference does not recite process conditions (concentration of chemical liquid, process time of each treatment steps) in connection with the timing chart of Fig. 9. Accordingly, one of ordinary skill in the art to which our claimed inventions relate would not understand the status of the oxide film (i.e., partially removed or completely removed) at the point of time when "overlapping step" begins. As JP4-287922A does not recite that the remaining oxide film is removed in the "overlapping step", it seems that the oxide film is completely removed at the point of time when "overlapping step" begins.

Claims 2-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-287922A in view of Taniyama et al (US Patent 6,096,233). These claims have been cancelled in favor of new claims 18-29, which are believed to be patentable over all of the art of record including this cited combination of references.

Given the combinations of features set forth in our new claims, even combining references as suggested above, does not meet the now pending claims.

This amendment is being filed with a three month extension of time and additional claim fees. Applicants do not anticipate any further fees due. If any fees are due in connection with the filing of this Amendment and Request for Reconsideration, such as fees under 37 C.F.R. §§1.16 or 1.17, please charge the fees to Deposit Account 02-4300; Order No. 033082M201.

Respectfully submitted,

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